

Observations of the Ending of the Eclipse.

	Instrument.	Clock or Chronometer.	Mean Solar Time. d h m s	Observer.
(e)	S. E. Equatoreal	Sid. Standard	29 0 51 16.6	W. C.
(f)	E. Equatoreal	Earnshaw	0 51 16.7	D.
(g)	Altazimuth	Graham 1	0 51 21.6	L.
	Lee Equatoreal	Frodsham 3449	0 51 3.6	G. L. T.
	6-in Equatoreal	Webb 5380	0 50 56.1	C. B. N.
(h)	2½-in Altazimuth	Dent 2015	0 51 2.6	J. W. N.

Notes.—(a) Very tremulous. Power 140. (b) Time recorded uncertain. (c) Power 76. (d) Probably from 10 to 20 seconds late. (e) Power 295. (f) Observed through cloud. (g) The observation was considered good. (h) The last contact may have occurred at the recorded time $\pm 7^s$.

The initials of the Observers, W. C., D., L., A. D., G. L. T., C. B. N., and J. W. N., are those of Mr. Christie, Mr. Dunkin, Mr. Lynn, Mr. Downing, Captain Tupman, Lieutenant Neate, and Mr. Nichol.

Royal Observatory, Greenwich,
1875, November 12.

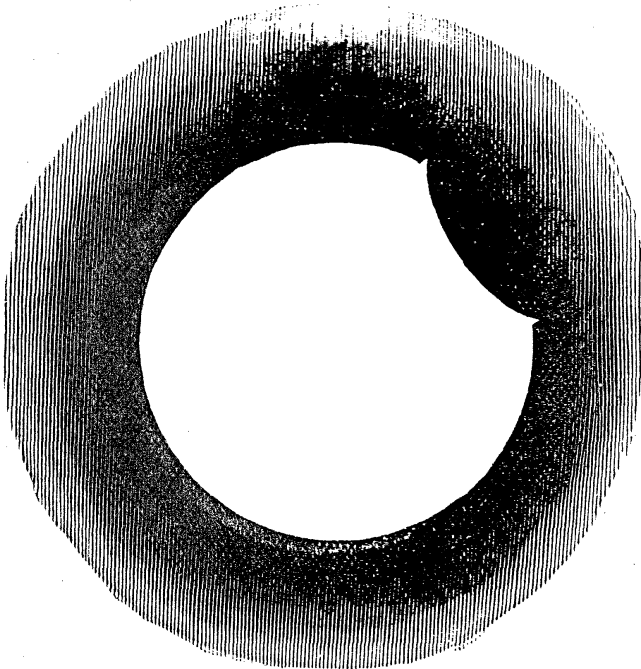
Partial Eclipse of the Sun, September 28-29, 1875, observed at
Forest Lodge, Maresfield. By Capt. Wm. Noble.

I constricted the aperture of the object-glass of my Equatoreal to 2.3 inches, and observed with a power of 74 and a dark-green eye-shade. The atmospheric undulation was very great indeed. As far as I could determine, the first perceptible indentation on the limb of the Sun occurred at

11^h 57^m 5^s L.S.T. = Sept. 28, 23^h 25^m 49^s L.M.T.

The limb of the Moon was very notably smooth. Before, during, and after the time of greatest obscuration, the Sun's limb appeared to turn *very* slightly outwards—perhaps to the extent of 1" or 1".5—where that of the Moon cut it, giving rise to the effect of two little thorns of light projecting from it. It suggested the idea of very slight refraction of the Sun's light at the limb of the Moon. In order to eliminate anything in the shape of personal equation, and to be certain that this was an actual objective appearance, I got Mr. Noble, and Mr. J. Lister-Godlee of the Equity Bar, successively to view the eclipsed Sun, and to describe what they saw; and in each case the little

thorns of light were at once detected and mentioned by the observer. The accompanying sketch indicates this appearance very fairly.



The last contact, which I observed through massive driving cumuli, I believe to have occurred at

13^h 20^m 26^s L.S.T. = Sept. 29, 0^h 48^m 56^s L.M.T.

Phenomena of Jupiter's Satellites, observed at Mr. E. Crossley's Observatory, Bermerside, Halifax, with the 9 1/3 inch Cooke Refractor. By Edward Crossley, Esq., F.R.A.S., and Mr. Joseph Gledhill, F.R.A.S., F.G.S., &c.

Date. 1875.	Satellite	Phenomenon.	G.M.T.			Observer.	Remarks.
			h	m	s		
April 13	I.	Ec.D. first beg. to fade	9	17	53	E. C.	Good.
						& J. G.	
		half gone	18	18		"	Fair.
	I.	disappeared	19	18		"	Good.
		Oct. R. first seen	11	29	30	J. G.	May be 20 sec. in error; bad definition.
		half out	31	0		"	Pretty good.
		quite clear of disk	33	0		"	Pretty good.